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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,625	08/04/2006	Chojiro Kuriyama	10921.422USWO	7233
52835	7590	03/30/2009	EXAMINER	
HAMRE, SCHUMANN, MUELLER & LARSON, P.C.			SINCLAIR, DAVID M	
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MINNEAPOLIS, MN 55402-0902			PAPER NUMBER	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,625	<b>Applicant(s)</b> KURIYAMA, CHOJIRO	
	<b>Examiner</b> DAVID M. SINCLAIR	<b>Art Unit</b> 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10, 13 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 5-9, 11, 12 and 14-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08/04/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/04/2006 &amp; 06/15/2007</u> .                             | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

1. Figures 23-24 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: L<sub>2</sub>, L<sub>31</sub>, R<sub>31</sub>, R<sub>2</sub>, and 32c. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective

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action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

5. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2 & 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Masuda et al. (2003/0053286).

In regards to claim 1, Masuda '286 discloses

A solid electrolytic capacitor comprising a porous sintered body of valve metal (13 – fig. 4; [0072]); a first and a second anode wires partially extending into the porous sintered body (14 & 15 - fig. 4; [0075]), portions of the first and the second anode wires which project out from the porous sintered body serving as a first and a second anode terminals; and a cathode including a solid electrolytic layer formed on a surface of the porous sintered body ([0073]); wherein the first anode wire and the second anode wire extend into the porous sintered body in different directions from each other (fig 4).

In regards to claim 2, Masuda '286 discloses

The solid electrolytic capacitor according to claim 1, wherein the direction in which the first anode wire extends and the direction in which the second anode wire extends are opposite from each other (fig. 4).

In regards to claim 4, Masuda '286 discloses

The solid electrolytic capacitor according to claim 1, wherein the porous sintered body is flat (fig. 4; [0072]).

8. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai et al. (2004/0021534).

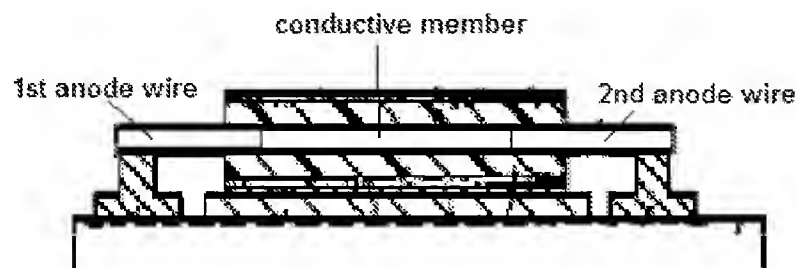


Figure 1: Altered version of Arai '534 fig. 6C showing examiner labels

In regards to claim 1, Arai '534 discloses

A solid electrolytic capacitor comprising a porous sintered body of valve metal (6 – fig. 6; [0050]); a first and a second anode wires partially extending into the porous sintered body (present office action fig. 1 (POA1); [0050]), portions of the first and the second anode wires which project out from the porous sintered body serving as a first and a second anode terminals; and a cathode including a solid electrolytic layer formed on a surface of the porous sintered body ([0050]);

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wherein the first anode wire and the second anode wire extend into the porous sintered body in different directions from each other (fig. 6; [0050]).

In regards to claim 2, Arai '534 discloses

The solid electrolytic capacitor according to claim 1, wherein the direction in which the first anode wire extends and the direction in which the second anode wire extends are opposite from each other (fig. 6).

In regards to claim 3, Arai '534 discloses

The solid electrolytic capacitor according to claim 1, further comprising a conductive member for electrically connecting the first and the second anode terminals to each other (POA1).

In regards to claim 4, Arai '534 discloses

The solid electrolytic capacitor according to claim 1, wherein the porous sintered body is flat (fig. 6).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda '286 or Arai '534 in view of Tadanobu et al. (2003/0039093).

In regards to claim 21,

The reference as applied above discloses all the limitations of claim 21 except a plurality of porous sintered bodies are provided; and wherein the porous sintered bodies are stacked in a thickness direction of the porous sintered bodies.

Tadanobu '093 discloses a plurality of porous sintered bodies for solid electrolytic capacitor anodes are provided; and wherein the porous sintered bodies are stacked in a thickness direction of the porous sintered bodies (fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stack the solid electrolytic capacitor element of Masuda '286/Arai '534 in a thickness direction as taught by Tadanobu '093 to obtain a



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solid electrolytic capacitor having a large capacitance that has a reduce footprint saving space on a circuit board.

12. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda '286 or Arai '534 in view of JP2003-264128 hereafter referred to as Naito.

In regards to claim 22,

The reference as applied above discloses all the limitations of claim 22 except a plurality of porous sintered bodies are provided; and wherein the porous sintered bodies are arranged side by side in a direction crossing a thickness direction of the porous sintered bodies.

Naito discloses a plurality of porous sintered bodies for solid electrolytic capacitor anodes are provided; and wherein the porous sintered bodies are arranged side by side in a direction crossing a thickness direction of the porous sintered bodies (abstract; fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to stack the solid electrolytic capacitor element of Masuda '286/Arai '534 in a horizontal direction as taught by Naito to obtain a solid electrolytic capacitor having a large capacitance that is superior in high frequency performance.

***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1, 3, 19-22 are rejected on the ground of nonstatutory double patenting over claims 1, 2, 5, 20, & 22 of U. S. Patent No. 7,031,141 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

In regards to claim 1,

USPAT 7,031,141 claims a solid electrolytic capacitor comprising: a porous

sintered body of valve metal; a first and a second anode wires partially extending

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into the porous sintered body, portions of the first and the second anode wires which project out from the porous sintered body serving as a first and a second anode terminals; and a cathode including a solid electrolytic layer formed on a surface of the porous sintered body; wherein the first anode wire and the second anode wire extend into the porous sintered body in different directions from each other (claims 1 & 5).

In regards to claim 3,

USPAT 7,031,141 claims the solid electrolytic capacitor according to claim 1, further comprising a conductive member for electrically connecting the first and the second anode terminals to each other (claims 1 & 5).

In regards to claim 19,

USPAT 7,031,141 claims the solid electrolytic capacitor according to claim 3, wherein the first and the second anode terminals are anode terminals for inputting and outputting which enable circuit current to flow through the porous sintered body; and wherein the conductive member forms a bypass current path which enables circuit current to flow from the anode terminal for inputting to the anode terminal for outputting while detouring around the porous sintered body (claims 1 & 5).

In regards to claim 20,

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USPAT 7,031,141 claims the solid electrolytic capacitor according to claim 19, wherein the bypass current path between the anode terminals for inputting and outputting has resistance which is lower than resistance of the porous sintered body between the anode terminals for inputting and outputting (claim 2).

In regards to claim 21,

USPAT 7,031,141 claims the solid electrolytic capacitor according to claim 4, wherein a plurality of porous sintered bodies are provided; and wherein the porous sintered bodies are stacked in a thickness direction of the porous sintered bodies (claim 20).

In regards to claim 22,

USPAT 7,031,141 claims the solid electrolytic capacitor according to claim 4, wherein a plurality of porous sintered bodies are provided; and wherein the porous sintered bodies are arranged side by side in a direction crossing a thickness direction of the porous sintered bodies (claim 22).

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

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15. Claims 1-3, 10, & 13 are rejected on the ground of nonstatutory double patenting over claims 1, 4-6, 8-9, 13-15, & 17-18 of U. S. Patent No. 7,450,366 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

In regards to claim 1,

USPAT 7,450,366 claims a solid electrolytic capacitor comprising: a porous sintered body of valve metal; a first and a second anode wires partially extending into the porous sintered body, portions of the first and the second anode wires which project out from the porous sintered body serving as a first and a second anode terminals; and a cathode including a solid electrolytic layer formed on a surface of the porous sintered body; wherein the first anode wire and the second anode wire extend into the porous sintered body in different directions from each other (claims 1 & 4 & 13).

In regards to claim 2,

USPAT 7,450,366 claims the solid electrolytic capacitor according to claim 1, wherein the direction in which the first anode wire extends and the direction in which the second anode wire extends are opposite from each other (claim 5 & 14).

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In regards to claim 3,

USPAT 7,450,366 claims the solid electrolytic capacitor according to claim 1, further comprising a conductive member for electrically connecting the first and the second anode terminals to each other (claim 6 & 15).

In regards to claim 10,

USPAT 7,450,366 claims the solid electrolytic capacitor according to claim 3, wherein the conductive member includes an anode metal plate; and wherein the solid electrolytic capacitor further comprises an insulating member interposed between the anode metal plate and the cathode (claim 8 & 17).

In regards to claim 13,

USPAT 7,450,366 claims the solid electrolytic capacitor according to claim 10, further comprising a cathode metal plate electrically connected to the cathode and interposed between the cathode and the insulating member (claim 9 & 18).

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

***Allowable Subject Matter***

16. Claims 5-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPAT 6,977,807 – fig. 10

USPGPUB 2004/0017645 – fig. 9

USPAT 5,184,287 – fig. 1

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID M. SINCLAIR whose telephone number is (571)270-5068. The examiner can normally be reached on Mon - Thurs. 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Diego Gutierrez/  
Supervisory Patent Examiner, Art Unit 2831

/D. M. S./  
Examiner, Art Unit 2831